

Notice of Allowability	Application No.	Applicant(s)	
	09/628,629	SAQUIB, SUHAIL S.	
	Examiner	Art Unit	
	Anand Bhatnagar	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 06/12/06.
2. ☒ The allowed claim(s) is/are 1, 3-20, 22-35, and 37-49.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

1. Applicant's amendment filed on 06/12/06 has been entered and made of record.
2. Applicant has canceled claims 2, 21, and 36. Currently claims 1, 3-20, 22-35, and 37-49 are pending.

Allowable Subject Matter

3. Claims 1, 3-20, 22-35, and 37-49 are allowed.
4. The following is a statement of reasons for the indication of allowable subject matter: The closest prior art of Avinash et al. (U.S. patent 5,832,134) discloses to perform subsampling to a image signal, then median filtering, then interpolation on the median filtered image signal, etc. in order for an enhanced three dimensional visualization of an object. Avinash et al. does not teach, regarding claim 1, "performing linear filtering on the digital input signal to produce a filtered digital input signal; down-sampling the filtered digital input signal to produce the reduced resolution signal; performing median filtering on the reduced resolution signal to produce a filtered reduced resolution signal; and performing interpolation on the filtered reduced resolution signal to produce the digital output signal." Regarding claim 7, Avinash does not teach "performing linear filtering on the digital input signal to produce a filtered digital input signal; down-sampling the filtered digital input signal to produce a reduced resolution signal; performing median filtering on the reduced resolution signal to produce a

filtered reduced resolution signal; up-sampling the filtered reduced resolution signal to produce an up-sampled filtered signal; and performing low-pass linear filtering on the up-sampled filtered signal to produce the digital output signal.”

Regarding claim 20, Avinash et al. does not teach “a resolution reduction filter to produce a reduced resolution signal by reducing the resolution of a digital input signal wherein said resolution reduction filter comprises; a linear filter to produce a filtered digital input signal by filtering the digital input signal; and a down-sampler to produce the reduced resolution signal by down-sampling the filtered digital input signal; a median filter to produce a filtered reduced resolution signal by filtering the reduced resolution signal; and an interpolation filter to produce a digital output signal by interpolating the filtered reduced resolution signal.”

Regarding claim 26, Avinash does not teach “a linear filter to produce a filtered digital input signal by filtering the digital input signal; a down-sampler to produce the reduced resolution signal by down-sampling the filtered digital input signal; a median filter to produce a filtered reduced resolution signal by filtering the reduced resolution signal; an up-sampler to produce an up-sampled filtered signal by up-sampling the filtered reduced resolution signal; and a linear low pass filter to produce the digital output signal by filtering the up-sampled filtered signal.” Regarding claim 35, Avinash et al. does not teach “resolution reduction means for reducing a resolution of the digital input signal to produce a reduced resolution signal, wherein the resolution reduction means comprises: means for performing linear filtering on the digital input signal to produce a filtered digital

input signal; and means for down-sampling the filtered digital input signal to produce the reduced resolution signal; median filtering means for performing median filtering on the reduced resolution signal to produce a filtered reduced resolution signal; and interpolation means for performing interpolation on the filtered reduced resolution signal to produce the digital output signal.” Lastly, regarding claim 41, Avinash et al. does not teach “means for performing linear filtering on the digital input signal to produce a filtered digital input signal; means for down-sampling the filtered digital input signal to produce a reduced resolution signal; means for performing median filtering on the reduced resolution signal to produce a filtered reduced resolution signal; means for up-sampling the filtered reduced resolution signal to produce an up-sampled filtered signal; and means for performing low-pass linear filtering on the up-sampled filtered signal to produce the digital output signal.”

5. Any comments considered necessary by the applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance”.

Contact Information

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anand Bhatnagar whose telephone number is (571) 272-7416, whose supervisor is Jingge Wu whose number is (571) 272-

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7429, group fax is 571-273-8300, and Tech center 2600 customer service office number is 703-306-0377.



VIKRAM BALI
PRIMARY EXAMINER



Anand Bhatnagar

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September 2, 2006